REMARKS

Reconsideration and allowance are respectfully requested in light of the above amendments and the following remarks.

A new Abstract is submitted herewith as required by the Office Action.

The specification has been amended to overcome the objection thereto.

Regarding the Office Action's request for an Information Disclosure Statement, the Applicants are not aware of references, information or papers to be submitted.

Claims 1-4, 12, 13, and 15 have been canceled and claims 17-19 newly added, to better define the subject matter the Applicant regards as the invention. Support for the subject matter defined by the new claims is provided in the original claims and the specification on page 13, line 6, through page 14, line 8.

Claims 1-16 were rejected, under 35 USC §103(a), as being unpatentable over Cooper et al. (US 5,696,602) in view of Hashimoto (US 5,424,854). To the extent these rejections may be deemed applicable to the amended claims, the Applicant respectfully traverses.

The applied references fail to suggest the combined features recited in independent claim 17 for plotting a dither matrix of dots by: (1) setting, in a cell, a plurality of candidate dots,

which are to be next plotted, adjacent to dots already disposed in the cell, (2) measuring the distance of each of the plurality of candidate dots from a nearest one of the already disposed dots, in order to detect one candidate dot of longest distance among the measured distances, and (3) plotting, as a next dot, the detected one dot of longest distance. As illustrated in Fig. 8, for example, the dither matrix is formed by: (1) measuring the distance of a dot 128 nearest to each of a plurality of candidate dots 129 to be next plotted adjacent to energy focused dots 127 plotted in a cell and (2) plotting, as the next plotted dot, a candidate dot 129 of measured longest distance 131, among the distance measured candidate dots, and sequentially likewise energy focused dots. The resulting dither matrix has an irregular disposition of dots of non-periodic or non-iterative distances between the plotted energy focused dots and those plotted just thereafter. Such a dot disposition is shown in Applicant's Figs. 5D and 9.

By contrast to the above-noted claimed features, Cooper discloses in Fig. 11 plotting dots with a minimum density in a given area to obtain a quantitative dispersion of dots without objectionable visual impressions (Cooper col. 13, lines 42-49). Cooper does not teach measuring a distance between a plotted dot and a candidate dot, as recited in claim 17.

Hashimoto teaches reproducing images, without noticeable differences, when the resolution of the input image is changed (Hashimoto col. 7, lines 1-3). For example, in the case of dither processing an image of 400 ppi x 400 ppi, the binarizing processing uses a high resolution dither matrix with threshold levels increasing sequentially from a center, as shown in Hashimoto's Fig. 4. Using the same matrix to dither process a 200 ppi x 200 ppi image would produce large differences in image picture quality (see Hashimoto col. 1, lines 31-58).

To solve this problem, Hashimoto teaches, as a case of dither processing a low resolution image of 200 ppi x 200 ppi, the steps of: (1) dividing the matrix of Fig. 4 by four to form the matrix of Fig. 5 and (2) assigning "1" to a sub-matrix a, assigning "2" to a sub-matrix d, assigning "3" to a sub-matrix b and so on in order to assign thresholds of "1" to "64" sequentially and dispersedly to sub-matrices a, b, c, d. Accordingly, each sub-matrix is formed having threshold values sequentially increasing from its center, so that an image of concentration level 17 has, as shown in Fig. 7, a systematic dither equal to that of Fig. 6 for an output image of 400 ppi x 400 ppi (see Hashimoto col. 4, line 41, through col. 5, line 15). Essentially, Hashimoto's invention resides in sequentially assigning threshold values that increase with nearly equal

differences therebetween, from their respective low threshold values, in the four matrices.

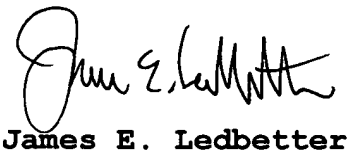
In accordance with the above discussion, Applicant submits that the applied references do not suggest the above-noted combined features for plotting a dither matrix of dots by: (1) setting, in a cell, a plurality of candidate dots, which are to be next plotted, adjacent to dots already disposed in the cell, (2) measuring the distance of each of the plurality of candidate dots from a nearest one of the already disposed dots, in order to detect one candidate dot of longest distance among the measured distances, and (3) plotting, as a next dot, the detected one dot of longest distance. Independent claim 18 similarly recites the features distinguishing apparatus claim 17 from the applied references, but with respect to a method. For similar reasons that these features distinguish claim 17, so too do they distinguish claim 18. Therefore allowance of claims 17 and 18 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone

the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,



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